from 0 to 30 % by weight of at least one further monomer c, different from monomer a, in polymerized form.

16. (Amended) A process as claimed in Claim 14, wherein the monomer b is selected from the group consisting of α,β-ethylenically unsaturated C_3-C_8-monocarboxylic acids, α,β-ethylenically unsaturated C_4-C_8-dicarboxylic acids with C_1-C_{12}-alkanols and anhydrides thereof, aromatic vinylcarboxylic acids, monoethylenically unsaturated sulfonic acids and phosphonic acids, esters of α,β-ethylenically unsaturated C_3-C_8-monocarboxylic acids with amino-C_2-C_8-alkanols, mono-C_1-C_4-alkylamino-C_2-C_8-alkanols or di-C_1-C_4-alkylamino-C_2-C_8-alkanols, N-vinyl lactams and esters of α,β-ethylenically unsaturated C_3-C_8-monocarboxylic acids with C_2-C_8-hydroxyalcohols or the ethoxylated or propoxylated derivatives thereof.--

Please add new Claims 17 and 18 as follows:

--17. (New) A process as claimed in Claim 12, wherein the dye-containing polymer particles have a particle size within the range from 5 nm to 500 nm and with a particle size distribution width of ≤ 40 %.

18. (New) A process as claimed in Claim 12, wherein the mixing of said solution of the polymer and of the dye with said aqueous phase is effected with a Y- or T-mixer or a static mixer.--

REMARKS

Claims 12-16 and new Claims 17 and 18 are active in the case. Reconsideration is respectfully requested.

The present invention relates to a method of preparing dye-containing polymer particles of at least one dye in a matrix of an essentially water-insoluble polymer.

Claim Amendment

Claim 12 has been amended to recite the precipitation of polymer particles from a solution of the polymer and of the dye by the continuous mixing of the solution with an aqueous phase. Support for the amending language of the claim can be found in the paragraph bridging pages 11 and 12, page 18, lines 22-27 and in Examples 1 to 7, for instance, with respect to the continuous process aspect. Support for the subject matter of new Claim 17 can be found on page 3, lines 6-13. Support for the subject matter of new Claim 18 can be found in the paragraph bridging pages 14 and 15. Entry of the amendment is respectfully requested.

Prior Art Rejection

Claims 12-16 stand rejected based on 35 U.S.C. 103(a) as obvious over Devissaguet et al, U.S. Patent 5,049,322 in view of Hou U. S. Patent 5,270,445. This ground of rejection is respectfully traversed.

It is clear that the Devissaguet et al disclosure describes the preparation of dispersible colloidal systems of a substance in nanocapsules. The process disclosed requires the incorporation of a core substance B in a substance A which is a film forming substance. Substance A and substance B are dissolved in a suitable solvent and thereafter a non-solvent such as water is mixed with the solution thereby forming the nanocapsules of the patent. However, the patent does not teach or suggest a continuous process as is the process of the invention as is clear, for instance, from Claim 1 of the patent. Example 9 of the present specification clearly describes a continuous process in which a solution of a dye and a polymer is continuously mixed with water in a static mixing nozzle with the resultant precipitation of polymer/dye particles. This process results in dye-containing polymer

particles that are of small particle size and narrow particle size distribution (dispersion width of 31.6 % in Ex 9) and as described at page 2, lines 41-44 of the specification. On the other hand, the different procedure of the patent results in polymer particles that have a size of < 500 nm. However, the particle size distribution of the particles of the patent is unsatisfactorily broad as evident from the dispersion indices of the examples of the patent. The favorable particle size and distribution effect of the present invention is attributable to the continuous aspect of the process. Accordingly, it is believed that the process as claimed is distinguished over the patent. respectfully requested.

The Hou patent discloses a method of forming fine particles of polymer by first forming a solution of a polymer in a good solvent for the polymer and then adding a non-solvent for the polymer but which is miscible with the good solvent to the solution, thereby resulting in precipitation of fine particles of polymer. However, the reference does not show or suggest a continuous process of forming fine particles of polymer in the fashion of the present invention. As seen above, the continuous process of the invention provides for fine polymer particles containing a dye of narrow particle size distribution. Such does not appear to be taught or suggested in the patent. Accordingly, the combined disclosures are not believed to suggest the invention and withdrawal of the rejection is respectfully requested.

It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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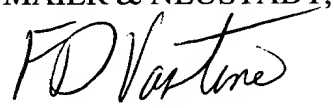
MAIER & NEUSTADT, P.C.



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MARKED-UP COPY OF AMENDMENT

IN THE CLAIMS

Please amend Claims 12 and 16 as follows:

--12. (Twice Amended) A process for preparing dye-containing polymer particles containing at least one dye in a matrix of an essentially water-insoluble polymer and having an average particle size within the range from 5 nm to 5 μm, which comprises: precipitating the [dye-containing] polymer particles from a solution of the polymer and of the dye in a water-miscible organic solvent by [addition] continuously mixing this solution [of] with an aqueous phase.

16. (Twice Amended) A process as claimed in Claim 14, wherein the monomer b is selected from the group consisting of α,β-ethylenically unsaturated C_3-C_8-monocarboxylic acids, α,β-ethylenically unsaturated C_4-C_8-dicarboxylic acids with C_1-C_{12}-alkanols and anhydrides thereof, aromatic vinylcarboxylic acids, monoethylenically unsaturated sulfonic acids and phosphonic acids, esters of α,β-ethylenically unsaturated C_3-C_8-monocarboxylic acids with amino-C_2-C_8-alkanols, mono-C_1-C_4-alkylamino-C_2-C_8-alkanols or di-C_1-C_4-alkylamino-C_2-C_8-alkanols, N-vinyl lactams and esters of α,β-ethylenically unsaturated C_3-C_8-monocarboxylic acids with C_2-C_8-hydroxyalcohols [or] and the ethoxylated or propoxylated derivatives thereof.--

Please add new Claims 17 and 18 as follows:

Claims 17 and 18. (New)